

# INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/JP 02/13183

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01J23/50 B01J23/66 B01J37/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 764 489 A (MITSUBISHI MATERIALS CORP) 26 March 1997 (1997-03-26)  page 3, line 5 - line 23; figure 1 page 3, line 53 - line 57 page 4, line 39 - line 56 page 6, line 5 - line 21 example 1; tables 3,4 ---	1-3,5-7, 12,13, 15-17, 21,23
X	US 6 087 024 A (NICHOLS MONTE CARL ET AL) 11 July 2000 (2000-07-11) column 3, line 13 - line 52 example 1 claims 1,4,5,13,17,18,31,32 --- -/--	2,3,5, 7-11,21

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

1 October 2003

Date of mailing of the international search report

12.2.10.03

Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 897 221 A (SALYER IVAL O ET AL) 29 July 1975 (1975-07-29) column 2, line 3 - line 7 column 6, line 1 - column 7, line 5 claim 1	2,5,7,8, 21
X	GB 1 074 018 A (ERDOELCHEMIE GMBH) 28 June 1967 (1967-06-28) cited in the application column 1, line 38 - column 3, line 18; example 1 claims 1-8,10	2,3,5-8, 10,21,22
X	US 5 958 367 A (ANTONELLI DAVID M ET AL) 28 September 1999 (1999-09-28) column 2, line 56 - line 60 column 3, line 29 - line 37 column 7, line 41 - line 57 column 8, line 36 - line 47	1,5,21
X	US 4 797 267 A (KUEHL GUENTER H) 10 January 1989 (1989-01-10) column 1, line 15 - line 24 figures 8A,8B; examples 19,20	1,3,4,21

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## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1, 3-23 (when dependant on claim 1)

a metal or metal oxide porous material having a rod-shaped crystal

2. Claims: 2, 3-23 (when dependant on claim 2)

a metal or metal oxide porous material, which is a soft or hard sponge material

# INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0764489	A	26-03-1997	JP 3417164 B2	16-06-2003
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			JP 9087704 A	31-03-1997
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			BE 648584 A	30-11-1964
			FR 1396858 A	23-04-1965
			NL 6405998 A	22-02-1965
			US 3376119 A	02-04-1968
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			WO 9631434 A1	10-10-1996
US 4797267	A	10-01-1989	NONE	